AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to Figures 1 and 2. These sheets, which includes Figures 1, 2 and 3 replace the original sheets including Figures 1, 2 and 3.

Attachment: Replacement Sheets (2)

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 38-98 are presently active in this case. Claims 1-37 were cancelled by a preliminary amendment, and Claims 38-67, 69-72, 80-84 and 97 were withdrawn from consideration as being directed to a non-elected species. The present Amendment amends Claims 68, 73, 75-79, 81, and 86-95; and adds new Claim 98 without introducing any new matter.

The March 16, 2010 Office Action objected to Figures 1 and 2 as not been labeled as background art under M.P.E.P. § 608.02(g). Claims 68, 73-75, 78, 85, and 87-93 were rejected under 35 U.S.C. § 102(e) as being anticipated by MacNamara et al. (U.S. Patent No. 6,841,848, hereinafter "MacNamara"). In addition, Claims 68, 76, 86, and 94-96 were rejected based on the reference Oi et al. (U.S. Patent Publication No. 2003/0092244, now U.S. Patent No. 6,830,985, hereinafter "Oi"). Claim 68 was also rejected under 35 U.S.C. § 102(e) as being anticipated by Iwasaki et al. (U.S. Patent No. 6,664,169, hereinafter "Iwasaki"). Claims 77 and 79 were rejected under 35 U.S.C. § 103(a) as being unpatentable over MacNamara. Claim 86 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Iwasaki, in view of Sakguchi (U.S. Patent Publication No. 2002/0068419).

In response to the objection to the drawings, submitted herewith is a Letter Submitting Drawing Sheets along with 2 Replacement Sheets for Figures 1-2 adding the label "Background Art," to mark the Figures appropriately.

Moreover, Applicants' independent Claim 68 is amended to clarify that a step of eliminating material is performed, that "eliminates material from the first wafer having the transplant layer from a frontal side of the first wafer, the transplant layer arranged under the frontal side of the first wafer." These features find non-limiting support in Applicants'

disclosure as originally filed, for example in Figures 3A and 3B, and in the specification at page 10, lines 9-27. Moreover, dependent Claims 73, 75-79, 81, and 86-95 are amended to reflect some of the changes made to independent Claim 68. No new matter has been added.

Moreover, new Claim 98 is added that depends from independent Claim 68, reciting features related to an additional step of eliminating material from a lateral side of the first wafer. These features find non-limiting support in Applicants' Figure 3B, and in the specification at page 10, lines 23-26.

In response to the rejection of the claims under 35 U.S.C. §§ 102 and 103, Applicants respectfully request reconsideration of these rejections and traverse the rejections, as discussed next.

Briefly summarizing, Applicants' independent Claim 68 is directed to a method of assembling a first wafer onto a second wafer, the first wafer including a transplant layer that has at least one of circuits, and components. The method includes the steps of eliminating material from the first wafer having the transplant layer from a frontal side of the first wafer, the transplant layer arranged under the frontal side of the first wafer, over a thickness less than a thickness of the first wafer, but greater than a thickness of the transplant layer; and assembling the transplant layer of the first wafer onto a second wafer.

Turning now to the applied reference, MacNamara is directed to a method of manufacturing a composite semiconductor wafer, where a device layer 2 is formed on a device wafer 9, and a handle layer 3 is formed on a handle wafer 10. (MacNamara, Fig. 2, Abstract.) Later during the method, both device and handle wafers 9, 10 are stacked together to form a composite wafer 1. (MacNamara, col. 8, ll. 53-63, Fig. 10.) MacNamara also explains how device wafer 9 is prepared, that will later be processed to include the device layer 2, and a step of etching material from the periphery of wafer 9 is performed. MacNamara gives the following details for this process:

> The inductively coupled plasma etch is directed in the direction of the arrows A, see FIG. 8, towards the patterned photoresist layer 23 and the exposed peripheral portion 26 of the first major surface 12 for etching the peripheral recess 25. The ICP etch is continued until the peripheral recess 25 has been etched into the device wafer 9 through the first major surface 12 to a depth d. The depth d to which the peripheral recess 26 is etched is determined by the final thickness t to which the device wafer 9 is machined in order to form the device layer 2. In other words, the final thickness t is the thickness to which the device layer 2 is machined prior to forming the micro-mirrors 5 therein. The depth d to which the peripheral recess 25 is etched should be at least equal to or greater than the final thickness t to which the device wafer 9 is to be machined to form the device layer 2, so that when machined to the thickness t a peripheral surface 28 defined by the peripheral recess 25 defines the peripheral edge 29 of the finished device layer 2, see FIGS. 2 and 11.

(NacNamara, col. 9, ll. 31-49, See also Figs. 2, 8, and 11.) However, Applicants' independent Claim 68 requires a step of eliminating material from the first wafer having the transplant layer from a frontal side of the first wafer, the transplant layer arranged under the frontal side of the first wafer, over a thickness . . . greater than a thickness of the transplant layer. In other words, the transplant layer is already present, and the material is removed to a thickness that is greater than the transplant layer. But in MacNamara, the depth d to which the peripheral recess 26 is etched is determined by the final thickness t to which the device wafer 9 is machined in order to form the device layer 2. Therefore the device layer 2 is not yet defined or present at the time of performing the peripheral etching in MacNamara.

The reference Iwasaki that was used by the Office Action fails to remedy the deficiencies of MacNamara. Iwasaki depicts in Figures 12A to 12I a thin-film semiconductor production process of a wafer 1301, where a silicon layer 1304, part of a porous layer 1303, and another silicon layer 1305 were removed by reactive ion etching, without removing any of wafer 1301. (See Iwasaki, Figures 12D-12E, col. 24, ll. 23-33.) But in Iwasaki there is no step of removing material to a thickness that is greater than the transplant layer that is part of the first wafer, as required by Applicants' independent Claim 68.

The reference Oi, used by the pending Office Action to form another rejection of Applicants' independent Claim 68, fails to remedy the deficiencies of MacNamara and/or

Iwasaki. The reference Oi is directed to a method for producing a bonded dielectric separation wafer, where dielectric isolation grooves 13 are etched into a silicon wafer 10, after the wafer 10 has been coated with a mask oxide film 11. (Oi, Figs. 2a - 2d, col. 7, ll. 38-55.) However, in Oi there is no step of removing material to a thickness that is greater than the transplant layer that is part of the first wafer, as required by Applicants' independent Claim 68.

Therefore, the applied references MacNamara , Iwasaki, and Oi fail to teach every feature recited in Applicants' Claim 68, so that Claim 68 is believed to be patentably distinct over MacNamara , Iwasaki, and Oi. Accordingly, Applicants respectfully traverse, and request reconsideration of the rejection based on these references.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 38-98 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

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